Installation & Operation Manual

VDR4-DVC
Keypad Controller

Vicon Industries Inc. does not warrant that the functions contained in this equipment will meet your requirements or that the operation will be entirely error free or perform precisely as described in the documentation. This system has not been designed to be used in life-critical situations and must not be used for this purpose.

Warning: To prevent fire or shock hazard, do not expose the unit to rain or moisture.

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VICON

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What's in the box ?

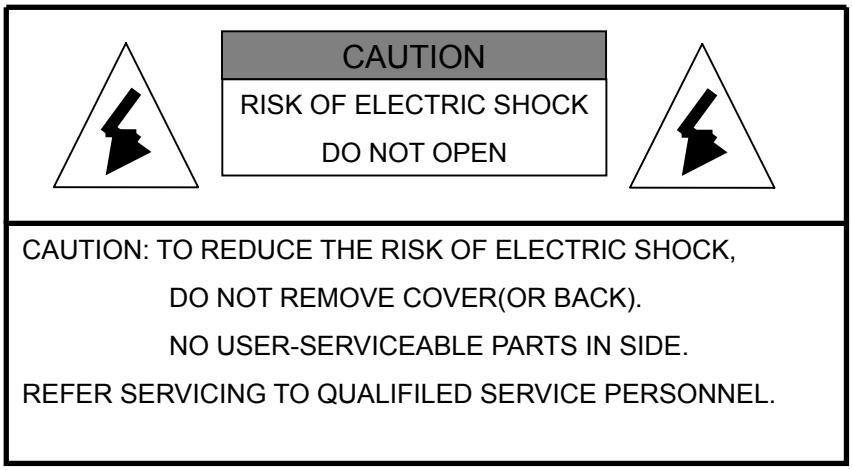
1. Controller
2. Junction Box
3. RJ11 8Pin Modular Cable 1EA
4. Manual

WARNING & CAUTION

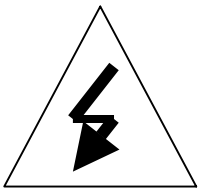
WARNING

TO REDUCE THE RISK OF FIRE OR ELECTIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT

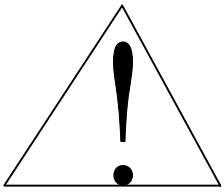
CAUTION


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICEABLE PARTS IN SIDE.
REFER SERVICING TO QUALIFILED SERVICE PERSONNEL.

GRAPHICAL SYMBOL EXPLANATION



The Lightning flash with arrowhead symbol, within an equilateral triangle, is Intended to alert the user to the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FCC COMPLIANCE STATEMNET

INFORMATION TO THE USER : THIS EQUIOMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE. PURSUANT TO PART 15 OF THE FCC RULES, THESE LIMITS ARE DESIGENED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES. USERS. AND CAN RADIATE RADIO PREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

CAUTION : CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTORITY TO OPERATE THE EQUIPMENT

CE COMPLIANCE STATMENT

THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

GENERAL DESCRIPTIONS

GENERAL DESCRIPTIONS

* Keyboard Controller is DVR & Camera controller and it allows how to operate the functions easily.
* This controller controls DVR and Camera such as DVR setup, Playback, PTZ function.
* The LCD shows display current status as well as provides a menu to set up operational parameters.
* This controller is designed for desktop operation and interface connectors are located in the junction box.

FEATURES

* To control all DVR functions such as Live display, Playback, DVR Setup, PTZ and Matrix.
* To control up to 255 DVRs from one keyboard controller.
* To control up to 255 cameras from one keyboard controller.
* Multi-protocol supported (PELCO-D, VICON).
* Preset position control.
* Maximum speed can be changed according to zoom ratio.
* To recall the programmed auto-scan from selected dome camera
* Built in LCD Display with blue screen.
* User password and system hold function

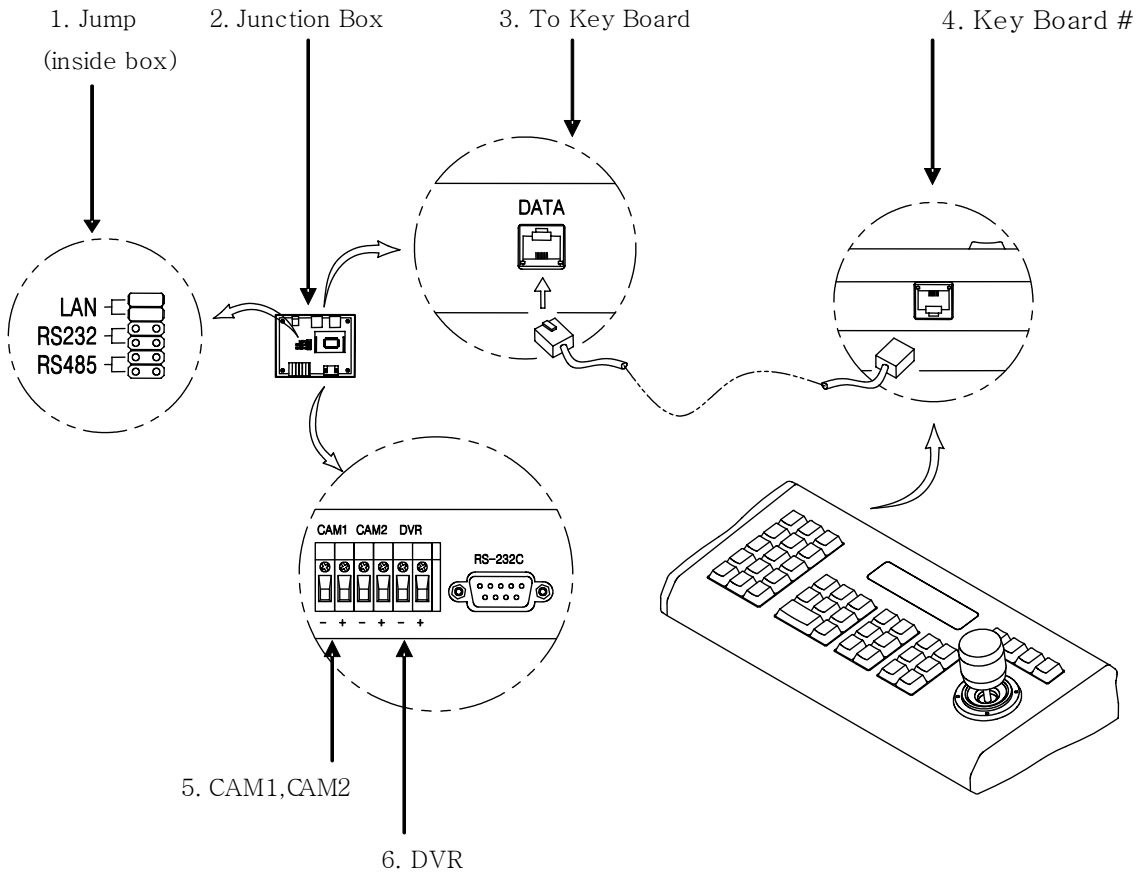
INSTALLATION

Open the box and check if all below items are included in the box.

. keyboard controller……..…… 1

. Junction box ……..…… 1

. 8P RJ45 Modular Cable (2m) …… 1

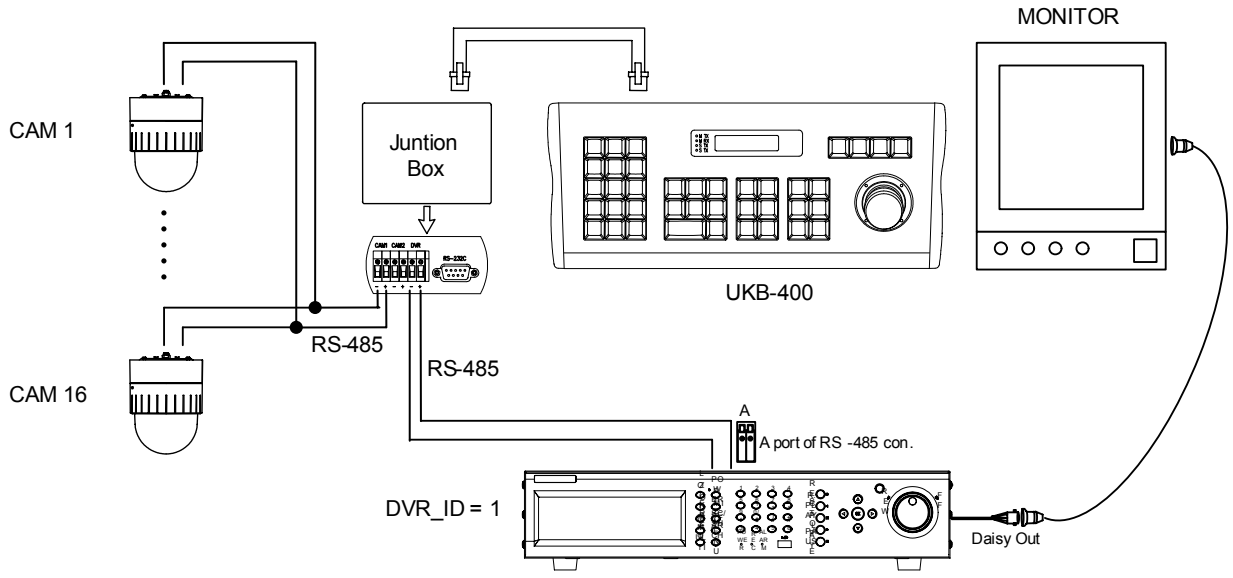


1. Jumper setting
2. Junction box
3. Junction box data In/Out port (To Keyboard)
4. Keyboard data In/Out port (To Junction Box)
5. Master RS485 D+/D- (To CAM1, CAM2)
6. Slave RS485 D-/D+ (To DVR)

INSTALLATION

A. Single DVR configuration

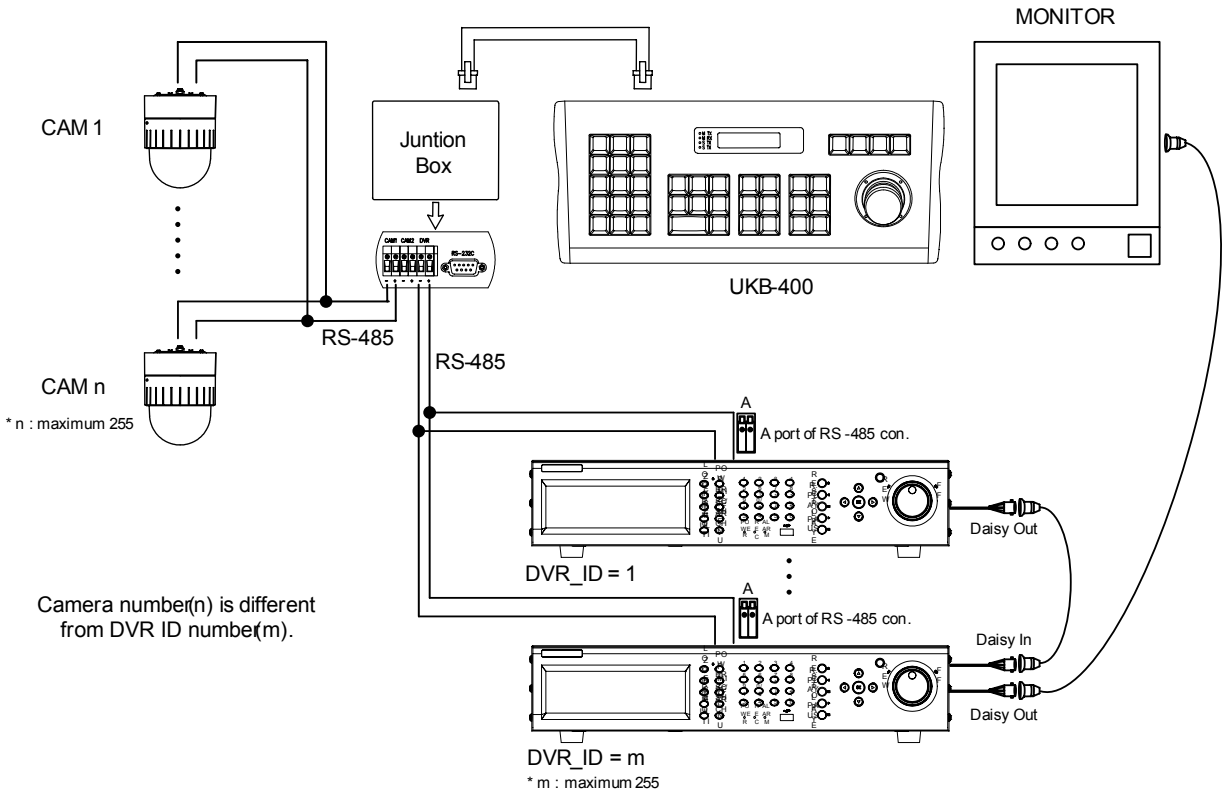
1. Connect RJ45 to the rear of keyboard controller and data on the junction box and plug in DC12V power to DC jack.
2. Connect CAM1 or CAM2 (RS485(D+),RS485(D-)) to Junction box terminal and communication Jack on PTZ camera (Please make sure of polarity)
3. Turn on the power and then you will be on the starting mode
4. Connect DVR (RS485(D+),RS485(D-)) to the Junction box terminal and the RS-485 A port of DVR. Please make sure of the polarity.
5. Connect Daisy-out port of DVR to the Monitor.



< Example of using single DVR Configuration >

B. Multiple DVR configuration

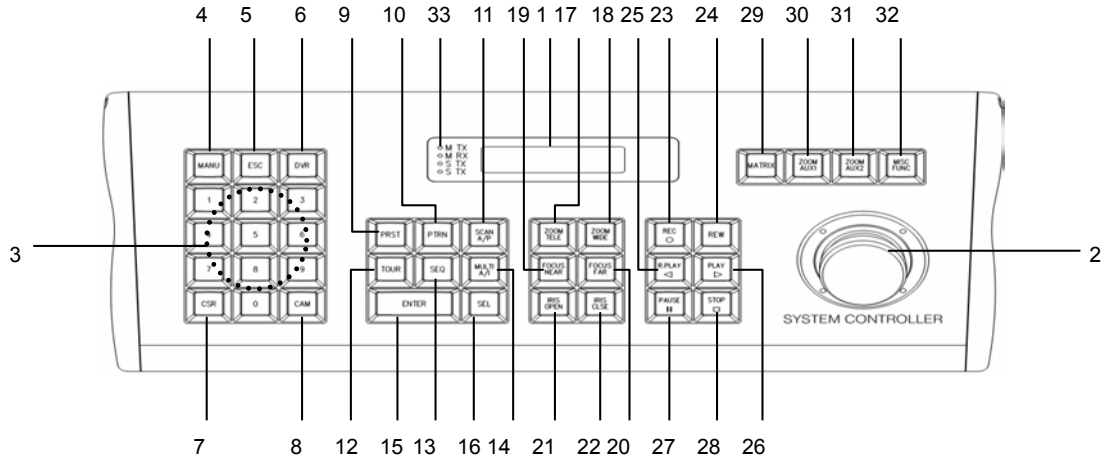
1. Connect RJ45 to the rear of keyboard controller and data on the junction box and plug in DC12V power to DC jack.
2. Connect CAM1 or CAM2 (RS485(D+),RS485(D-)) to Junction box terminal and communication Jack on PTZ camera (Please make sure of polarity)
3. Turn on the power and then you will be on the starting mode
4. Connect the DVR (RS485(D+),RS485(D-)) to Junction box terminal and the RS-485 A port of DVRs. Please make sure of polarity.
5. Connect Daisy-out port to DVR that DVR_ID number is 1 and connect Daisy-In port to DVR that DVR_ID number is 2
6. Connect Daisy-out port of the last DVR to the Monitor



< Example of using multiple DVRs Configuration >

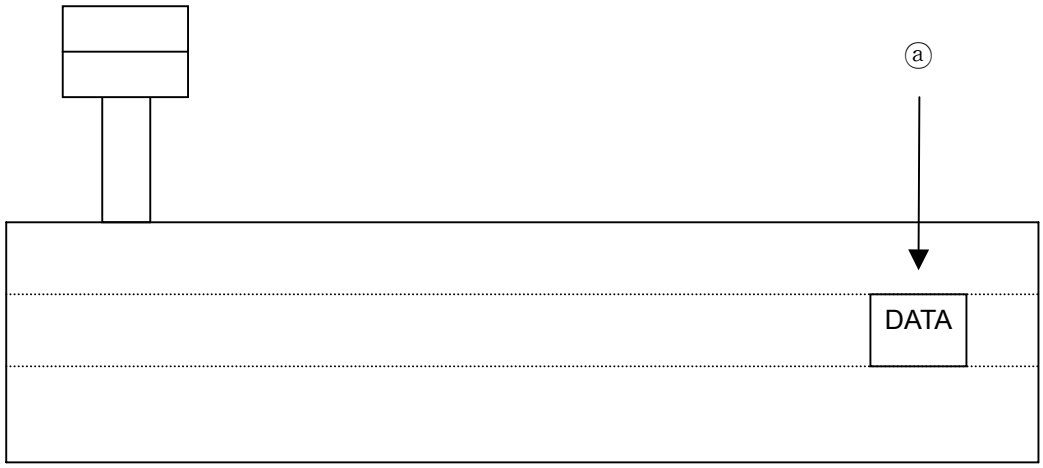
PART NAME & FUNCTIONS

A. PART NAME & FUNCTION



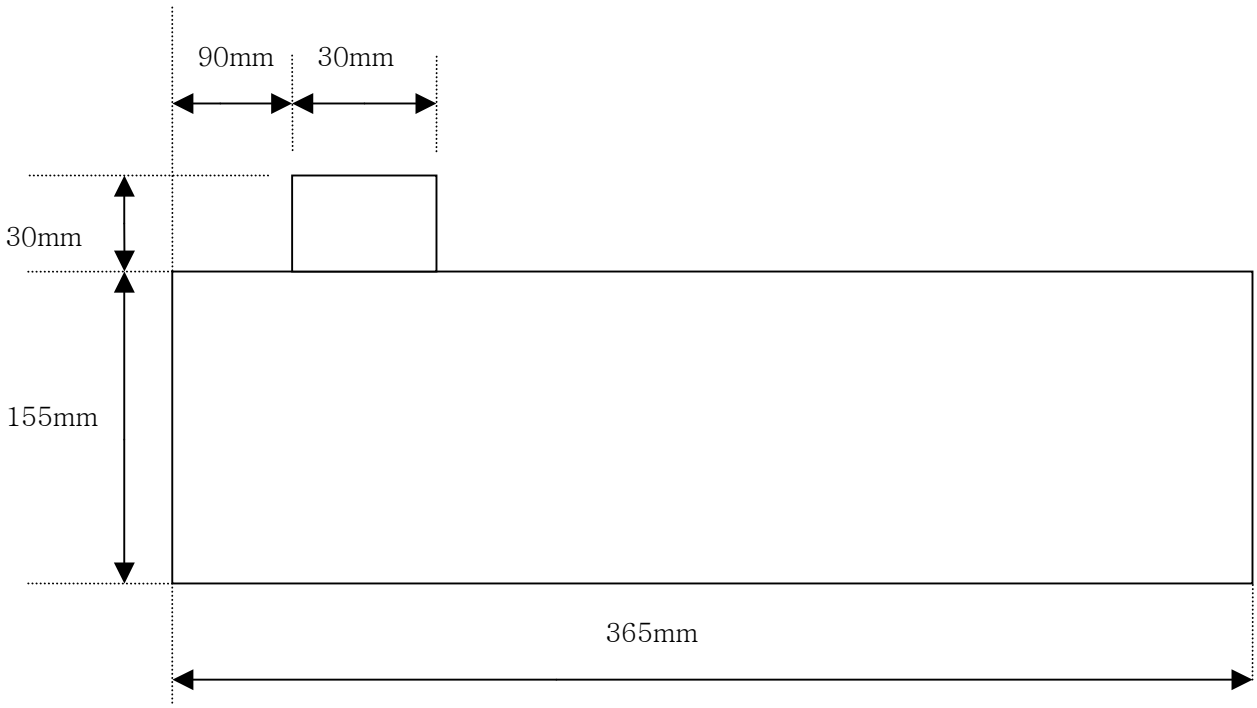
1. LCD Display : Displays numeric input system status, function status, general status, etc…	**16. SEL:** Selects Key(DVR and Key Board setting mode)
2. Telemetry joystick : Allows precise setting mode control of Pan/Tilt/Zoom & Moving to menu	**17. ZOOM TELE**: Camera Zoom Control for Tele
3. 0~9: : Numeric Key	**18. ZOOM WIDE**: Camera Zoom Control for Wide
4. Menu : Used for Camera(PTZ camera) and DVR menu adjustment	**19. FOCUS NEAR:** Camera focus Control for Near
5. ESC: Closes the current work and goes to starting menu	**20. FOCUS FAR:** Camera focus Control for Far
6. DVR: Selects address of DVR(Up to 255)	**21. IRIS OPEN:** Camera Iris Control for Open
7. CLR: Cancels Key	**22. IRIS CLOSE:** Camera Iris Control for Close
8. CAM: Selects address of camera	**23. REC:** DVR Record Key
9. PRST: Save and calls camera presets and positions	**24. SEARCH:** DVR Search Key
10. PTRN: Runs to camera Pattern key	**25. R.PLAY:** DVR Reverse Play key
11. SCAN/A/P: Runs to scan or Auto Pan key	**26. PLAY:** DVR Play key
12. TOUR: Runs to camera Tour key	**27. PAUSE:** DVR Pause key
13. SEQ: Sequential view under live mode of DVR.	**28. STOP:** DVR Stop key
14. MULTI/A/I: Selection button for Screen Division of DVR or Camera Auto Iris key	**29. MATRIX:** Matrix Function key
15. ENTER: Enter key	**30. ZOOM/AUX1:** DVR Zoom key or Camera Aux1 key
	31. FRZ/AUX2: DVR Freeze key or Camera Aux2 key
	32. MISC/FUNC: DVR Miscellaneous key or Camera Function key
	33. LED: TX/RX Status View

B. PART NAME & FUNCTIONS(REAR SIDE)



ⓐ Data out port (Connector to communication and power)

C. DRAWING OF CONSOLE DESK

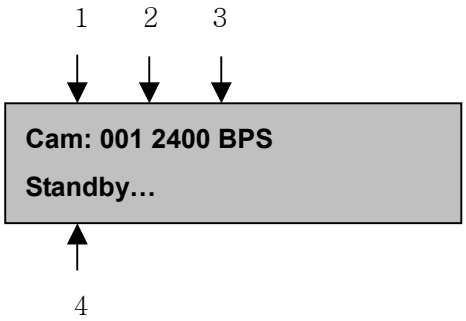


ACCESS TO THE CAMERA MENU

This function is only for the PTZ camera

DISPLAY LCD WINDOW

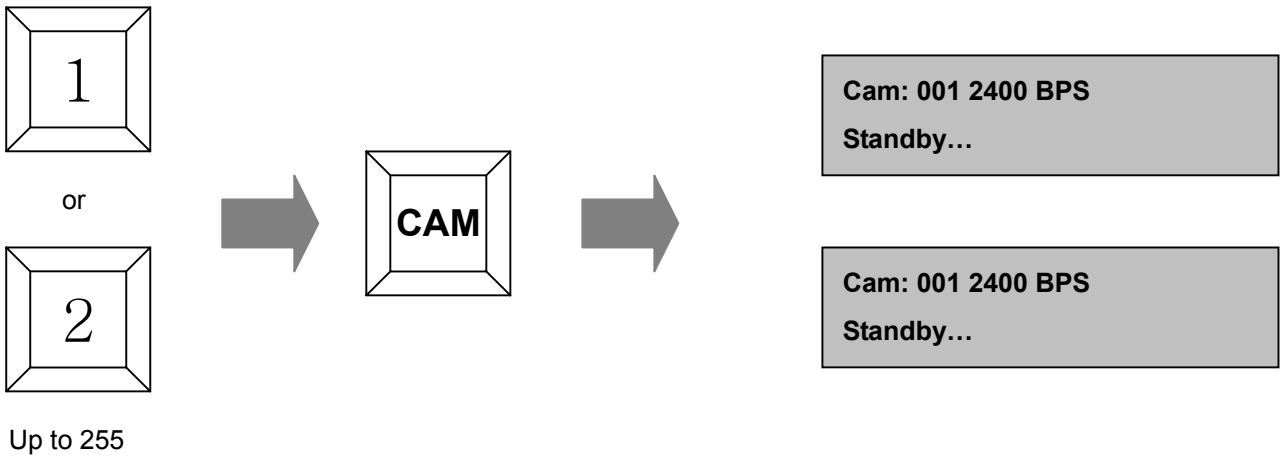
A. Initial display



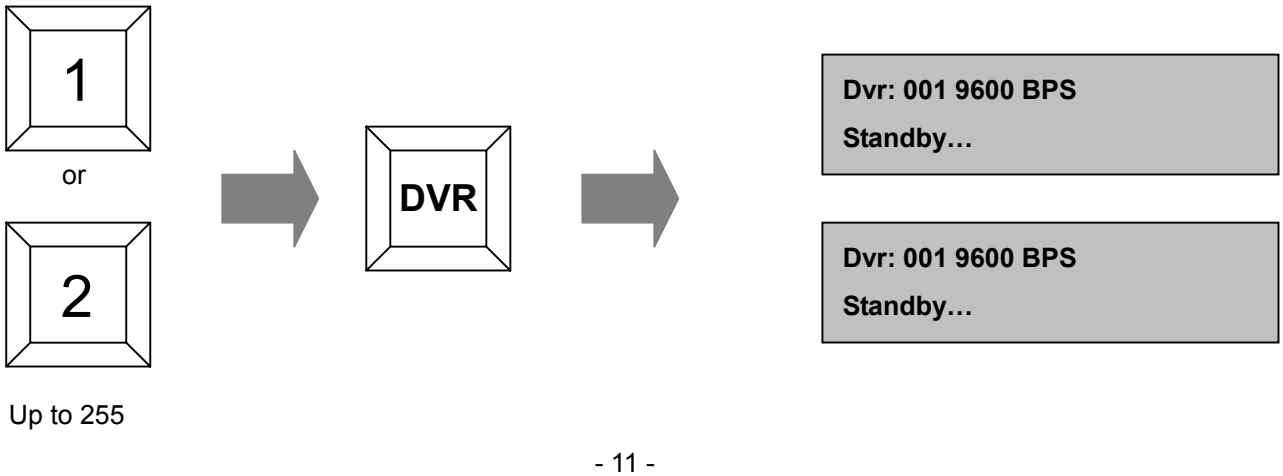
1. Show the selected unit (Camera or DVR)
2. Show the selected unit address No. (001 ~ 255)
3. Show the selected baud rate (2400/4800/9600 bps)
4. Show the controller status

B. How to select address

B-1. How to select address number 1 or 2 of camera.



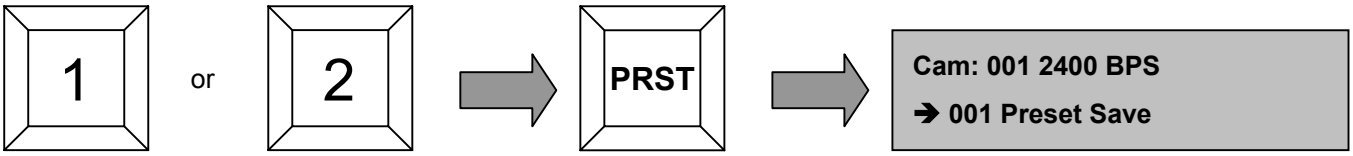
B-2. How to select address number 1 or 2 of DVR



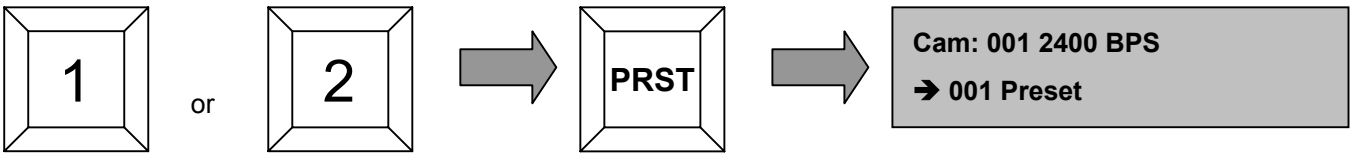
C. Easy preset save and call (In case of cam 1 / 2400 bps)

C-1. How to save preset 1 or 2 (1~64, 100~200)

After pushing no. 1 or 2, hold PRST for about 2 seconds



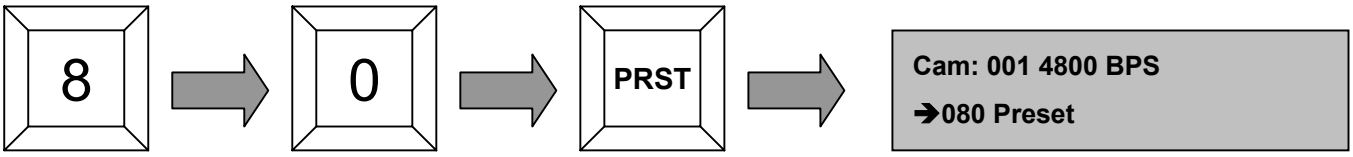
C-2. After pushing no. 1 or 2, push PRST shortly, it makes PRST work.



D. How to use TOUR function

D-1. Using VICON protocol (In case of Cam1/4800 bps)

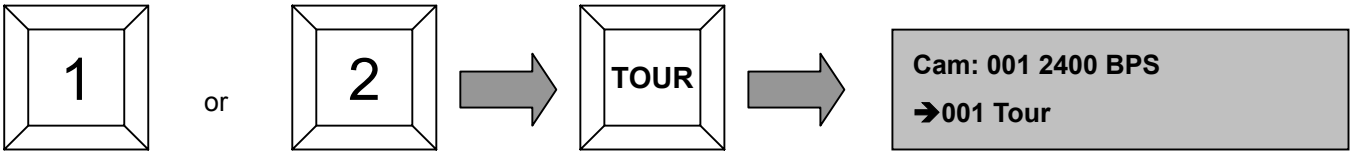
1. Tour has be to be set by using camera setup Menu.
2. Generally, Vicon tour function works by using specific preset number.(80 ~ 87)
3. After camera tour setup, you can operate tour function calling preset number.



Up to 87

D-2. Using Pelco-D protocol (in case of Cam1/2400 bps)

1. Tour has to be set by using camera setup Menu.
2. pushing no. 1 or 2, push TOUR shortly, it makes TOUR work.

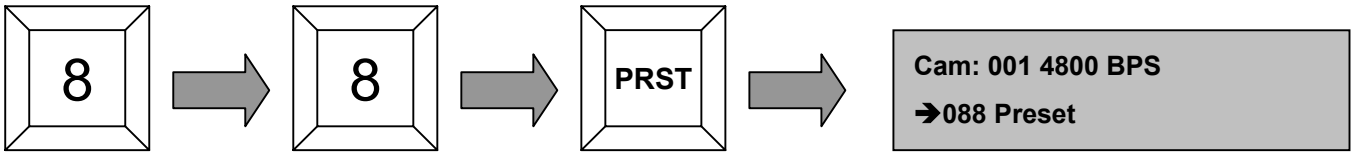


Up to 8

E. How to use PATTERN function

E-1. Using VICON protocol (In case of Cam1/4800 bps)

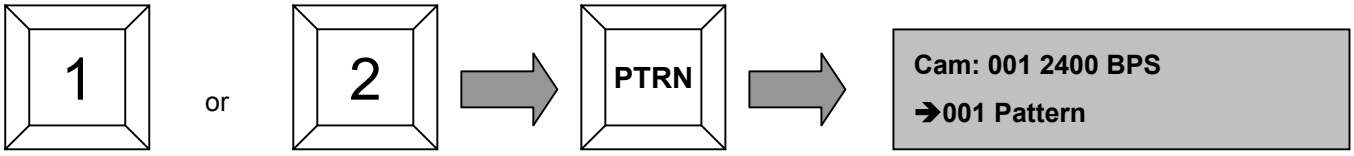
1. Pattern has to be set by using the camera setup Menu.
2. Generally, Vicon pattern function works by using the specific preset number.(88 ~ 89)
3. After set up the camera pattern, you can operate pattern function calling preset number.



Up to 89

E-2. Using Pelco-D protocol (in case of Cam1/2400 bps)

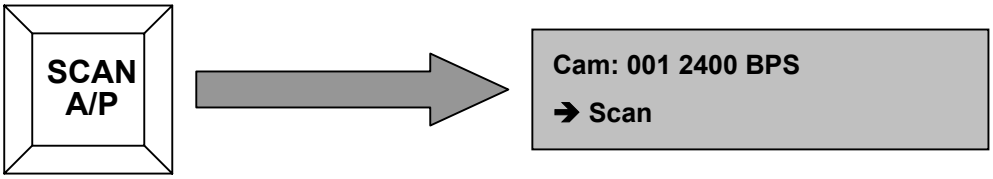
1. Pattern has to be set by using the camera setup Menu.
2. Push number 1 or 2, push PTRN shortly, it makes PTRN work.



Up to 8

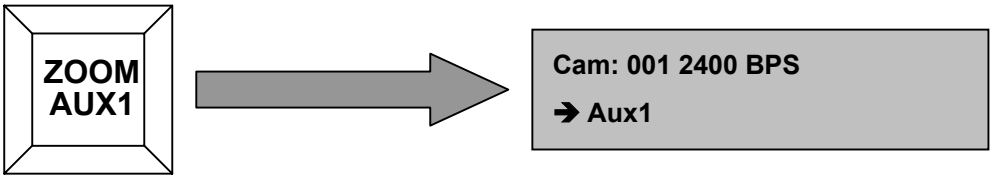
F. How to use SCAN function

F-1. How to use auto scan.



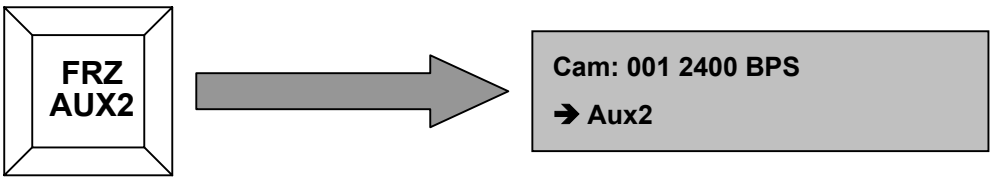
G. How to use AUX1 function

G-1. How to use AUX1.



H. How to use AUX2 function

H-1. How to use AUX2.

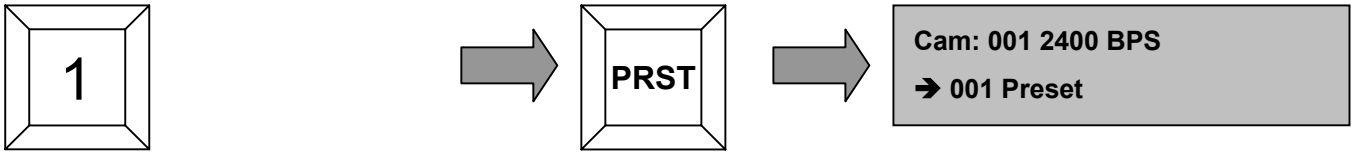


I. Easy Function save and run (In case of cam 1 / 2400 BPS)

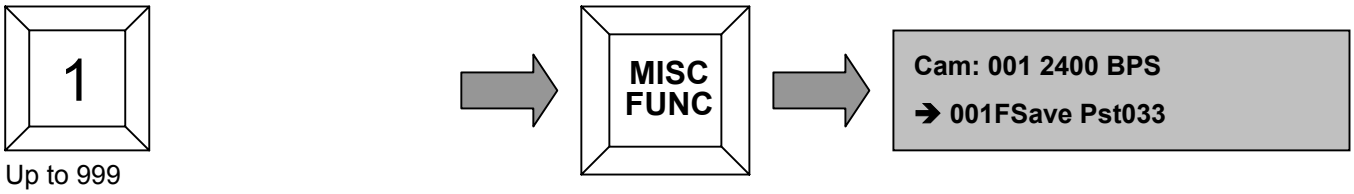
Function key is useful when you use a lot of cameras. Generally, each camera has been programmed preset positions. If you want to watch each camera's specific preset position, first you have to select camera and then you should select preset number. It is inconvenient. Function key saves camera number and preset number.

I-1. How to save function (1~999)

In case that you save preset 1 of camera 1 at function1, first you have to operate preset 1 of camera 1.



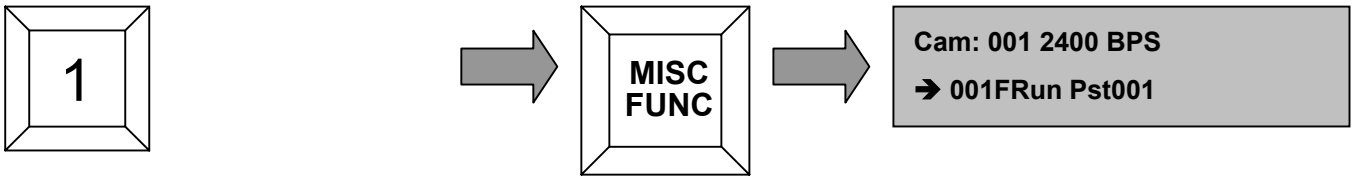
After that push number 1 and hold FUNC key for about 2 seconds.



Up to 999

I-2. How to run function (1~999)

After pushing no. 1, push FUNC key shortly, it makes FUNC work.



Up to 999

ACCESS TO THE DVR MENU

A. Display Selection (In case of DVR 1 / 9600 bps)

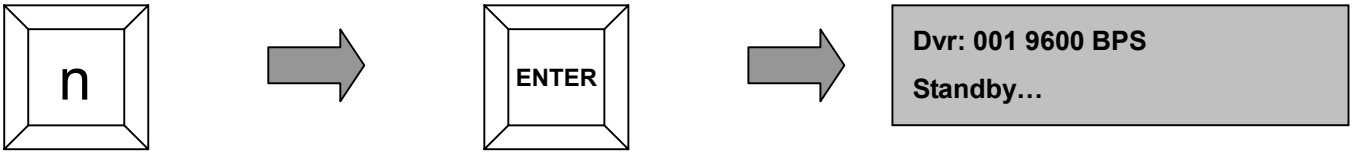
A-1. How to use channel sequence

Sequential view under live mode : Viewing of all active video input channels sequentially at the selected DVR

A-2. How to use single channel display

First push channel number 'n'(1~16), push ENTER, then displays the selected channel .

Exceptionally, '0' + 'ENTER' works same as 'MULTI'



A-3. How to use multi channel display

Live mode : Selection of Screen Division for Live Viewing mode(4,8,9,16 screen divisions)

Playback mode : Selection of Screen Division for playback. It shows 4,9,16 divided screen.

It works same as MULTI key of DVR.

B. DVR Function (In case of DVR 1 / 9600 bps)

B-1. How to use REC button

Press once to begin recording all active channels. Press again to end recording.

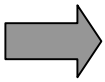
B-2. How to use SEARCH button

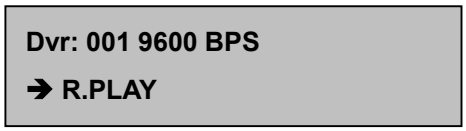
Press once to open the menu to search for the recorded files.

ACCESS TO THE DVR MENU

B-3. How to use R.PLAY button

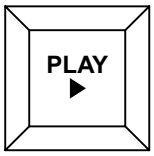
Press once to open the menu to search for the recorded files. Under the PTZ control menu, it can be used for decreasing the speed of Pan Tilt, Zoom, Focus.

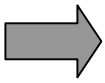


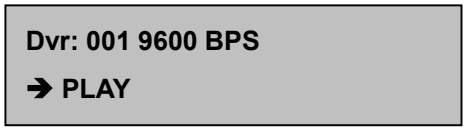


B-4. How to use PLAY button

Playback button will activate assigned starting position and channel at playback setup of a selected DVR menu. Under PTZ control menu, it can be used for increasing the speed of Pan, Tilt, Zoom, Focus.

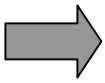


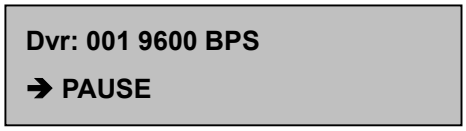




B-5. How to use PAUSE button

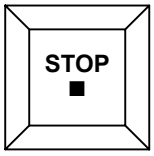
Press once to freeze playback. Press again to restart playback.

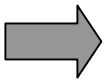


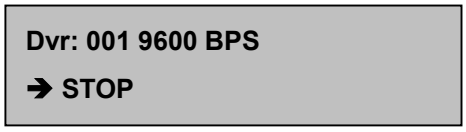


B-6. How to use STOP button

Press once to stop playback.

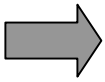


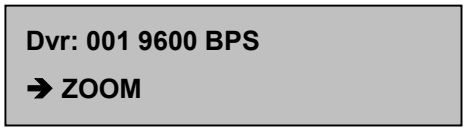




B-7. How to use ZOOM button

Zoom In/Out on the images during Live Viewing.





B-8. How to use FRZ button

Press once to freeze the frame at the live mode. Press again to release.

B-9. How to use MISC button

There are no buttons for NET, OSD, Audio Mute, HDD, LOG on the keyboard. To substitute these buttons, you may use MISC button.

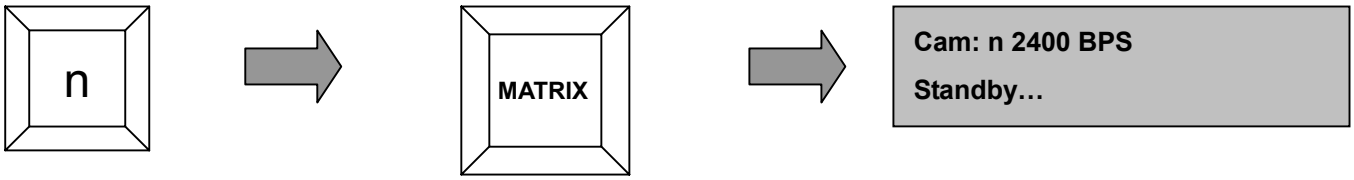
C. Matrix function

C-1. How to use Matrix button

After pushing no. n, push Matrix shortly, keyboard mode is changed into Cam mode and it waits camera control command. Daisy chain output displays n channel camera image.

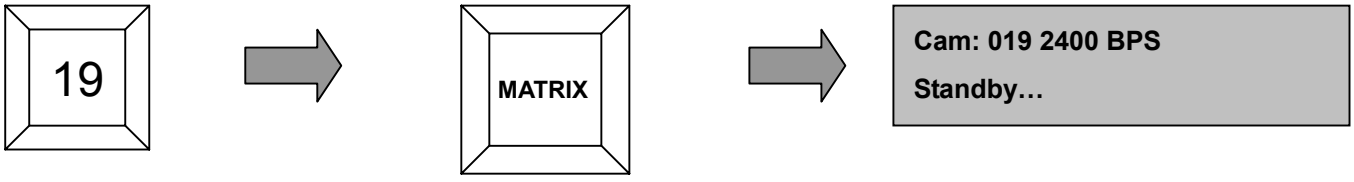
n channel camera is calculated by below formula.

* n = (DVR_ID-1)*16 + camera channel number, DVR ID = 1 ~ 255



Ex) Three sets of 16channel DVRs are installed. You want to control the third camera of second DVR. In this case, n is calculated $(2_{(DVR\_ID)}-1)*16 + 3_{(CAMERA\ CHANNEL)} = 19$

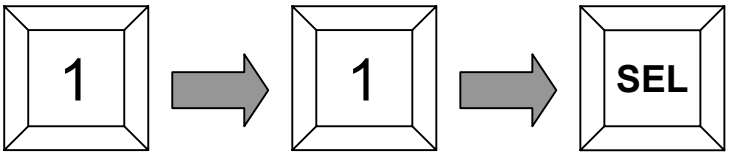
Daisy chain output displays the third camera of second DVR.



HOW TO USE KEYBOARD CONTROLLER SETUP MENU

When you change the setting value of setup menu, you should enter “9. Save And Exit”

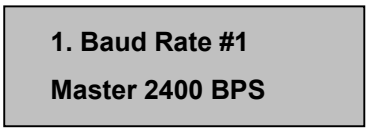
How to go setup menu : After pushing no. key 11, SEL key for over 3 seconds



A. How to use setup menu

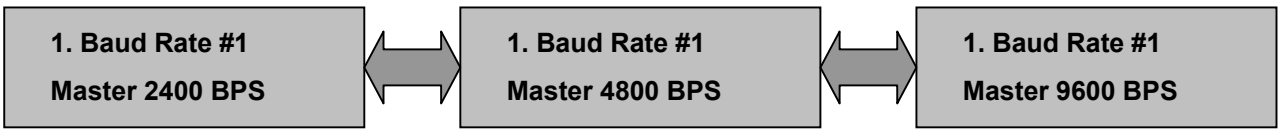
A-1. As you move joystick up and down, you can go to next menu, move left and right, you can change the value of setting.

A-2. Starting display in setup menu.



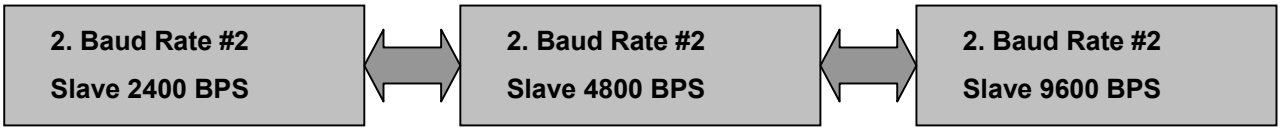
A-3. How to set the Master Baud Rate

(You can change the value of Master baud rate by moving Joystick Left and Right)



A-4. How to change Slave Baud Rate

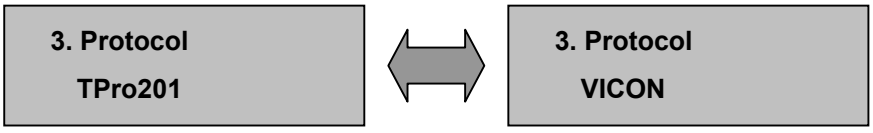
(You can change the value of Slave baud rate by moving Joystick Left and Right)



A-5. How to change Protocol

(You can change the Protocol by moving Joystick Left and Right)

* TPro201 includes Pelco-D. You need Pelco-D, you can use TPro201.

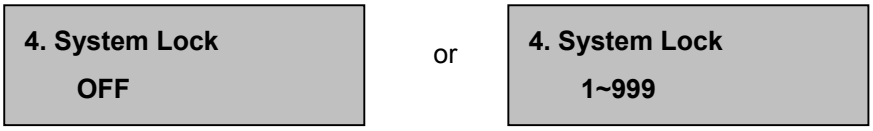


A-6. How to use System Lock function

You can use 0~999 by no. key,

when you input 000. it is OFF, when you input 001~999, Lock mode works

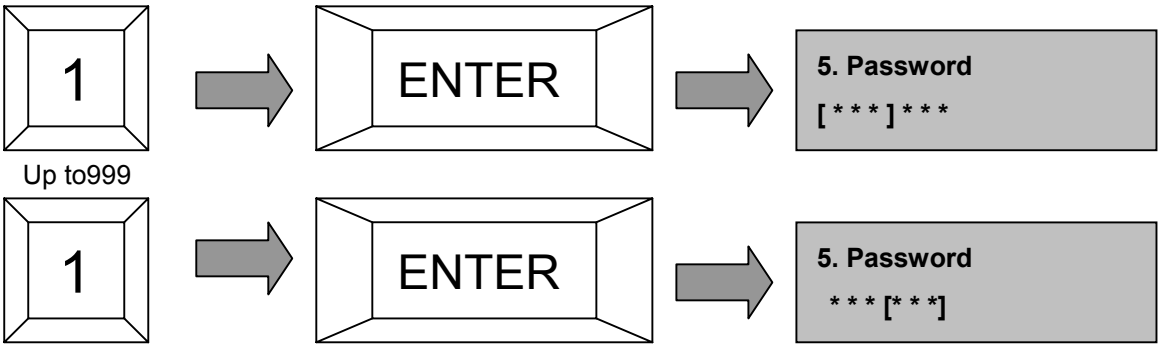
* Lock mode will be active, when keypad and joystick are not used for the set time.



A-7. How to enter Password

-. You can choose 0 up to 999 and push enter key

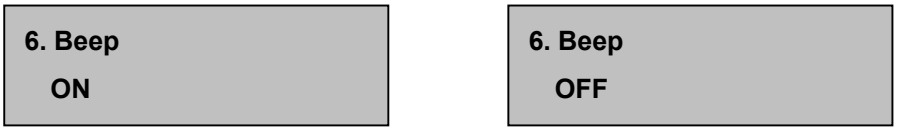
-. When you forget the password, please call to the vendors that you purchased from.



A-8. Beep

How to set beep.

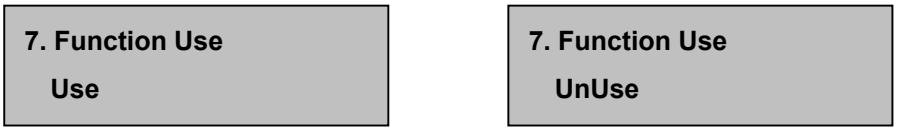
-. You can change the beep On/Off by moving Joystick Left and Right



A-9. Function Use

-. You can choose whether use or not the FUNC key.

Function Key is useful when you control several cameras. You can save camera ID & preset number at the specific function number.(1~999)



A-9. LCD Backlight

How to set up LCD Backlight.

-. You can change the Always ON, After 10sec, After 20sec, After 30sec, After 60sec by moving Joystick Left and Right

A-10. How to save and exit by Joystick Left and Right

A-11. Exit

EXAMPLES OF CAMERA/DVR SETTING & OPRERATION

A. DVR Menu setting

A-1. Menu → Camera Setup → PTZ Setup

Model No : PELCO-D or VICON

PTZ ID : 0~255 (In case of “0”, it is normally not used)

Baud Rate: 9600

A-2. Menu → System Setup → DVR ID

DVR ID : 0 ~ 255(In case of “0”, it is normally not used)

B. Keyboard setting (No need to change it because it is set as the default)

B-1. Enter Setting mode : “1” +”1”+ ”SEL” (Push “SEL” button in 3 seconds)

B-2. Camera control Baud rate :

1. Baud rate #1 : Master 2400 (in case protocol is TPro201)

1. Baud rate #1 : Master 4800 (in case protocol is VICON)

B-3. DVR control Baud rate : 2. Baud rate #2 : Slave 9600

B-4. Protocol : 3. Protocol : TPro 201 (Same as PELCO-D), VICON

B-5. Exit after saving the setting value : 9. Save and Exit

C. Keyboard operation

There is DVR mode and Camera model on Keyboard.

Change DVR mode : DVR ID + “DVR” button

Change Camera mode: CAMERA ID + “CAM” button or CAMERA ID + “MATRIX” button

C-1. How to operate DVR

1. Select DVR : “ 1 ”(DVR ID) + “ DVR ” button

2. Example to operate

2.1 Menu setting screen On/Off : “ Menu ” button

2.2 Change Live screen : “ 1~16 “ + “ Enter “, “ 0 “ + “ Enter “, “Multi”

2.3 Playback start : “ Play ” button

EXAMPLES OF CAMERA/DVR SETTING & OPRERATION

C-2. How to operate camera

1. Select camera : “ 1 ”(Camera ID) + “ CAM ” button
2. Example to operate
   2.1 Zoom Tele : “ ZOOM TELE ” button
   2.2 IRIS open : “ IRIS OPEN ” button
3. Camera control command button : MENU, ZOOM TELE, ZOOM WIDE, FOCUS NEAR, FOCUS FAR, IRIS OPEN, IRIS CLSE, PRST, PTRN, TOUR, SCAN, FUNC, AUX1, AUX2, JOYSTICK

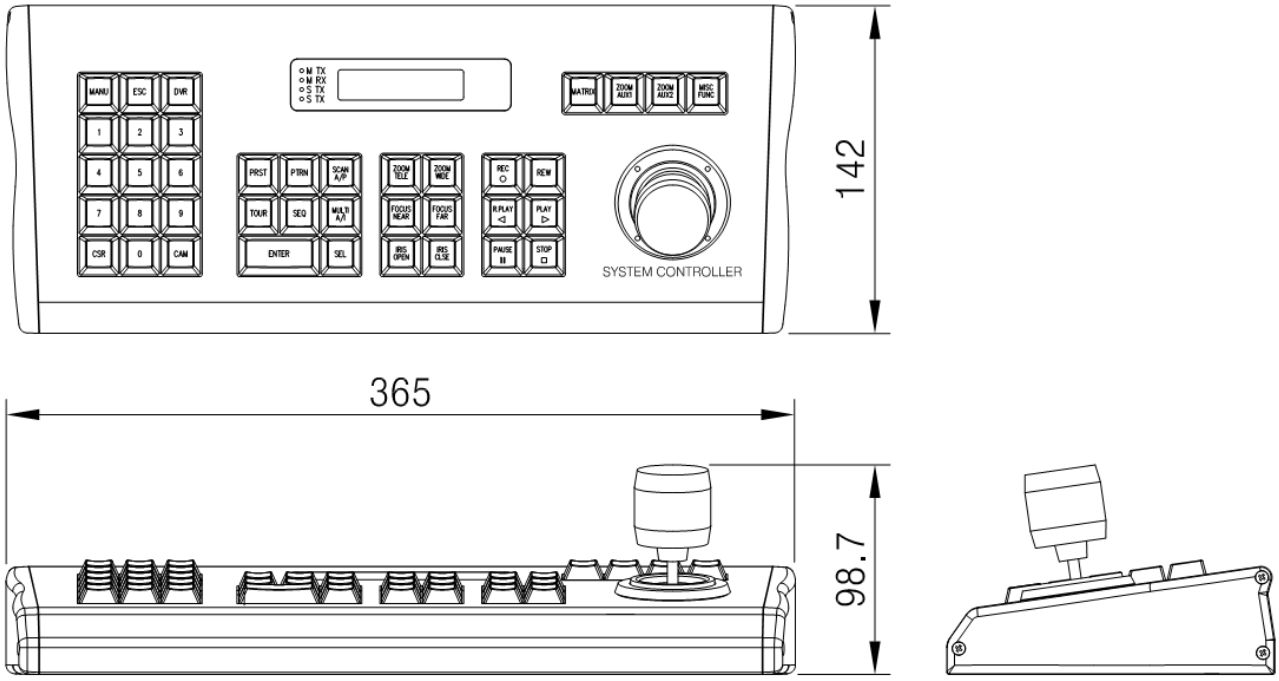
C-3. How to operate Matrix function (When connect a lot of DVRs by using Daisy chain cable)

1. How to connect and how to set DVR, Daisy chain cable, Speed dome camera
   1.1 Plug in optional Daisy chain cable into extension port on No.1, No.2 DVR
   1.2 Connect Daisy chain cable Vd_out on No.1 DVR into Daisy chain cable Vd_in on No.2 DVR.
   1.3 Connect Daisy chain cable Vd_out on No.2 DVR into monitor (Matrix output screen)
   1.4 Set “1” on No.1 DVR ID and set “2” on No.2 DVR ID.
   1.5 Set “1~16” on No.1 DVR that is connected with Speed Dome camera ID and set 17~32 on No.2 DVR that is connect with Speed Dome Camera ID.
2. Example to operate
   2.1 Select No.19 Camera: “ 19 ” + “ MATRIX ” button
   Watch No.3 camera screen of No.2 DVR on Matrix output screen. In this case, the camera controls command can be operated because the keypad is on the camera mode.

SPECIFICATION

Item		Keyboard controller
Communication		MASTER(for CAM) : RS-485 (2400bps, 4800bps, 9600bps) SLAVE(for DVR) : RS-485 (2400bps, 4800bps, 9600bps)
Joystick	Axis	3-Axis, Zoom IN/OUT available
	Power Consumption	DC 12V, 110mA
Display Type		16 x 2 Character LCD, With Blue Backlight
Key Type		PC Key board Button
Key board Connector Type		RJ45 8 Pin Modular Cable
Junction Box Connector		Master : Terminal Block. Slave : Terminal Block
Humidity		10% ~ 70% non Condensing
Dimension		140(W) x 185(H) x 365(D)
Weight		1.2kg

DIMENSION



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